



Please type a plus sign (+) inside this box → ☐

/PTO/SB/21 (08-00)

Approved for use through 10/31/2002 OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# TRANSMITTAL FORM

(To be used for all correspondence  
after initial filing)

Application Number	10/050,054
Filing Date	January 16, 2002
First Named Inventor	Emad S. Alnemri
Group Art Unit	1646
Examiner Name	
Attorney Docket No.	480140.474

RECEIVED

DEC 05 2002

TECH CENTER 1600, 2900

## ENCLOSURES (check all that apply)

- ☐ Fee Transmittal Form
- ☐ Fee Attached
- ☐ Amendment/Response
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☒ Information Disclosure Statement; Forms PTO-1449 (4 Sheets)
- ☒ Cited References (41)
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts under 37 C.F.R. 1.52 or 1.53
- ☐ Response to Missing Parts/Incomplete Application

- ☐ Assignment Papers (for an Application)
- ☐ Drawing(s)
- ☐ Request for Corrected Filing Receipt
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation, Change of Correspondence Address
- ☐ Declaration
- ☐ Statement under 37 CFR 3.73(b)
- ☐ Terminal Disclaimer
- ☐ Small Entity Statement
- ☐ Request for Refund

- ☐ CD(s), Number of CD(s) \_\_\_\_\_
- ☐ After Allowance Communication to Group
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Return Receipt Postcard
- ☐ Additional Enclosure(s) (please identify below): \_\_\_\_\_

Remarks

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Individual Name William T. Christiansen, Ph.D.  
Reg. No. 44.614



00500

PATENT TRADEMARK OFFICE

Signature

Date

November 26, 2002

## CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on the date specified below.

Typed or printed name Larry Dobson

Signature

Date: November 26, 2002



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

DEC 05 2002

TECH CENTER 1600/2900

Applicants : Emad S. Alnemri  
Application No. : 10/050,054  
Filed : January 16, 2002  
For : INHIBITION OF INTERLEUKIN-1- $\beta$  SECRETION BY CARD  
PROTEINS

Art Unit : 1646  
Docket No. : 480140.474  
Date : November 26, 2002

Commissioner for Patents  
Washington, DC 20231

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents:

In accordance with 37 C.F.R. §§ 1.56 and 1.97 through 1.98, applicant wishes to make known to the Patent and Trademark Office the references set forth on the attached form PTO-1449 (copies of the cited references are enclosed).

As to any reference supplied, applicant does not admit that it is "prior art" under 35 U.S.C. §§ 102 or 103, and specifically reserves the right to traverse or antedate any such reference, as by a showing under 37 C.F.R. § 1.131 or other method. Although the aforesaid references are made known to the Patent and Trademark Office in compliance with applicant's duty to disclose all information he is aware of which is believed relevant to the examination of the above-identified application, applicant believes that his invention is patentable.

Please acknowledge receipt of this Information Disclosure Statement and kindly make the cited references of record in the above-identified application.

Respectfully submitted,

Emad S. Alnemri

Seed Intellectual Property Law Group PLLC



William T. Christiansen, Ph.D.

Registration No. 44,614

WTC:ljd

Enclosures:

Postcard  
Form PTO/SB/21  
Forms PTO-1449 (4 Sheets)  
Cited References (41)

701 Fifth Avenue, Suite 6300  
Seattle, Washington 98104-7092  
Phone: (206) 622-4900  
Fax: (206) 682-6031

D:\NrPortbl\Manage LARRYD\337199\_1.DOC

FORM PTO-1449 (REV. 7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 480140.474		APPLICATION NO. 10/050.054	
<b>INFORMATION DISCLOSURE STATEMENT</b> <i>(Use several sheets if necessary)</i>				APPLICANT Emad S. Alnemri		GROUP ART UNIT 1646	
				FILING DATE January 16, 2002			
<b>U.S. PATENT DOCUMENTS</b>							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA						
<b>FOREIGN PATENT DOCUMENTS</b>							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO		
	BB						
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
	BC	Chou et al., "Solution structure of the RAIDD CARD and model for CARD/CARD interaction in caspase-2 and caspase-9 recruitment." <i>Cell</i> 94(2):171-180, July 24, 1998.					
	BD	Druilhe et al., "Regulation of IL-1 $\beta$ generation by Pseudo-ICE and ICEBERG, two dominant negative caspase recruitment domain proteins." <i>Cell Death and Differentiation</i> 8(6):649-657, June 2001.					
	BE	Eberstadt et al., "NMR structure and mutagenesis of the FADD (Mort1) death-effector domain." <i>Nature</i> 392(6679):941-945, April 30, 1998.					
	BF	Guiet and Vito, "Caspase recruitment domain (CARD)-dependent cytoplasmic filaments mediate bcl10-induced NF- $\kappa$ B activation." <i>J. Cell Biol.</i> 148(6):1131-1139, March 20, 2000.					
	BG	Hofmann, "The modular nature of apoptotic signaling proteins." <i>Cell. Mol. Life Sci.</i> 55(8-9):1113-1128, July 1999.					
	BH	Hofmann et al., "The CARD domain: a new apoptotic signalling motif." <i>Trends Biochem. Sci.</i> 22(5):155-156, May 1997.					
	BI	Howard et al., "IL-1-converting enzyme requires aspartic acid residues for processing of the IL-1 $\beta$ precursor at two distinct sites and does not cleave 31-kDa IL-1 $\alpha$ ." <i>J. Immunol.</i> 147(9):2964-2969, November 1, 1991.					
	BJ	Humke et al., "ICEBERG: a novel inhibitor of interleukin-1 $\beta$ generation." <i>Cell</i> 103(1):99-111, September 29, 2000.					
	BL	Lee et al., "Cop, a caspase recruitment domain-containing protein and inhibitor of caspase-1 activation processing." <i>J. Biol. Chem.</i> 276(37):34495-34500, September 14, 2001.					
	BM	Li et al., "Cytochrome c and dATP-dependent formation of Apaf-1/caspase-9 complex initiates an apoptotic protease cascade." <i>Cell</i> 91(4):479-489, November 14, 1997.					
	BN	MacFarlane et al., "Identification and molecular cloning of two novel receptors for the cytotoxic ligand TRAIL." <i>J. Biol. Chem.</i> 272(41):25417-25420, October 10, 1997.					
	BO						
EXAMINER				DATE CONSIDERED			
* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).							

RECEIVED

DEC 05 2002

TECH CENTER 1600/2300

FORM PTO-1449  
(REV. 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

480140.474

APPLICATION NO.

10/050,054

## INFORMATIONAL DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANT

Emad S. Alnemri

FILING DATE

January 16, 2002

GROUP ART UNIT

1646

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FIG. NO. DATE IF APPROPRIATE
AA						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO
AB	EP 1 033 401 A2	09/06/00	EPO	
AC	WO 01/90156	11/29/01	WIPO	

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AD	EMBL "Online! Database, Accession No. AA070591, October 3, 1996.
AE	Genbank Accession No. AA046000, September 6, 1996.
AF	Genbank Accession No. AA070591, October 27, 1997.
AG	Genbank Accession No. AC023068, March 3, 2000.
AH	Genbank Accession No. AC027011, April 27, 2000.
AI	Genbank Accession No. AP001153, March 22, 2001.
AJ	Genbank Accession No. AP002787, July 13, 2000.
AK	Genbank Accession No. XP_005312, October 16, 2001.
AL	Genbank Accession No. XP_040782, October 16, 2001.
AM	Genbank Accession No. XP_055386, October 16, 2001.
AN	Genbank Accession No. XP_055388, October 16, 2001.
AO	Geneseq "Online! Database, Accession No. AAG01331, September 6, 2000.
AP	Ahmad et al., "CRADD, a novel human apoptotic adaptor molecule for caspase-2, and FasL/tumor necrosis factor receptor-interacting protein RIP." <i>Cancer Res.</i> 57(4):615-619, February 14, 1997.
AQ	Alnemri et al., "Cloning and expression of four novel isoforms of human interleukin-1 $\beta$ converting enzyme with different apoptotic activities." <i>J. Biol. Chem.</i> 270(9):4312-4317, March 3, 1995.

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

RECEIVED

DEC 05 2002

TECH CENTER 1600/2900

FORM PTO-1449 (REV. 7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 480140.474	APPLICATION NO. 10:050.054
<b>INFORMATION DISCLOSURE STATEMENT</b> (Additional sheets if necessary)		APPLICANT Emad S. Alnemri	
		FILING DATE January 16, 2002	GROUP ART UNIT 1646

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
CA						

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO
CB			

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

CC	Mao et al., "Activation of caspase-1 in the nucleus requires nuclear translocation of pro-caspase-1 mediated by its prodomain," <i>J. Biol. Chem.</i> 273(37):23621-23624, September 11, 1998.
CD	Miura et al., "Induction of apoptosis in fibroblasts by IL-1 $\beta$ -converting enzyme, a mammalian homolog of the <i>C. elegans</i> cell death gene <i>ced-3</i> ," <i>Cell</i> 75(4):653-660, November 19, 1993.
CE	Muzio et al., "An induced proximity model for caspase-8 activation," <i>J. Biol. Chem.</i> 273(5):2926-2930, January 30, 1998.
CF	Nett-Fiordalisi et al., "Characterization and Activation of Murine Interleukin-1 $\beta$ (IL-1 $\beta$ ) Converting Enzyme," <i>J. Cell Biochem.</i> 17B:117, 1993.
CG	Salvesen and Dixit, "Caspase activation: the induced-proximity model," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 96(20):10964-10967, September 28, 1999.
CH	Siegel et al., "Death-effector filaments: novel cytoplasmic structures that recruit caspases and trigger apoptosis," <i>J. Cell Biol.</i> 141(5):1243-1253, June 1, 1998.
CI	Sleath et al., "Substrate Specificity of the Protease That Processes Human Interleukin-1 $\beta$ ," <i>J. Biol. Chem.</i> 256:14526-14528, August 25, 1990.
CJ	Srinivasula et al., "Autoactivation of procaspase-9 by Apaf-1-mediated oligomerization," <i>Mol. Cell.</i> 1(7):949-957, June 1998.
CK	Srinivasula et al., "CLAP, a novel caspase recruitment domain-containing protein in the tumor necrosis factor receptor pathway, regulates NF- $\kappa$ B activation and apoptosis," <i>J. Biol. Chem.</i> 274(25):17946-17954, June 18, 1999.
CL	Thome et al., "Identification of CARDIAK, a RIP-like kinase that associates with caspase-1," <i>Curr. Biol.</i> 8(15):885-888, July 16, 1998.
CM	Thornberry et al., "A novel heterodimeric cysteine protease is required for interleukin-1 $\beta$ processing in monocytes," <i>Nature</i> 356(6372):768-774, April 30, 1992.
CN	

EXAMINER	DATE CONSIDERED
----------	-----------------

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449  
(REV 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.

480140.474

APPLICATION NO.

10/050.054

**INFORMATION DISCLOSURE STATEMENT**

(Use several sheets if necessary)

APPLICANT

Emad S. Alnemri

FILING DATE

January 16, 2002

GROUP ART UNIT

1646

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	DA						
	DB						
	DC						
	DD						
	DE						

RECEIVED

DEC 05 2002

TECH CENTER 1630/2900

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	DF					
	DG					
	DH					
	DI					
	DJ					

**OTHER PRIOR ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

	DK	Walker et al., "Crystal structure of the cysteine protease interleukin-1 $\beta$ -converting enzyme: a (p20/p10) <sub>2</sub> homodimer." <i>Cell</i> 78(2):343-352. July 29, 1994.
	DL	Wilson et al., "Structure and mechanism of interleukin-1 $\beta$ converting enzyme." <i>Nature</i> 370(6487):270-275. July 28, 1994.
	DM	Yuan et al., "The C. elegans cell death gene ced-3 encodes a protein similar to mammalian interleukin-1 $\beta$ -converting enzyme." <i>Cell</i> 75(4):641-652. November 19, 1993.
	DN	
	DO	
	DP	
	DQ	
	DR	

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).